

**REMARKS**

In the Office Action, the Examiner rejected claims 1-22. By this paper, Applicants hereby cancel claims 1-9, add new claims 23-32, and amend claims 10, 11, 13-17, and 19 for clarification of certain features to expedite allowance of the present application. These amendments and new claims do not add any new matter. In view of the foregoing amendments and the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

**Objection to the Specification**

In the Office Action, the Examiner objected to the specification due to various informalities. Accordingly, Applicants hereby amend the specification as indicated in the attached substitute specification. In view of these amendments, Applicants respectfully request the Examiner withdraw the objection to the specification.

**Objection to the Claims**

In the Office Action, the Examiner objected to the claims due to various informalities. In particular, the Examiner objected to claims 4 and 8. However, as noted above, Applicants hereby cancel claims 1-9, thereby rendering the foregoing claim objections moot. In view of these amendments, Applicants respectfully request the Examiner withdraw the objection to the claims.

**Claim Rejections under 35 U.S.C. § 112, Second Paragraph**

In the Office Action, the Examiner rejected claims 3, 9, and 16 under 35 U.S.C. § 112, Second Paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. Applicants respectfully traverse this rejection. However, as noted above, Applicants hereby cancel claims 1-9 and amend claim 16, thereby rendering the foregoing claim rejections moot. In view of these amendments, Applicants respectfully request the Examiner withdraw the foregoing rejections.

**Claim Rejections under 35 U.S.C. § 102**

In the Office Action, the Examiner rejected claims 1, 3, 8, and 9 under 35 U.S.C. § 102(b) as anticipated by Schoenberg (U.S. Patent No. 5,166,677); and the Examiner rejected claims 10-13 and 18-22 under 35 U.S.C. § 102(b) as anticipated by Johansen et al. (U.S. Patent No. 6,595,487). Applicants respectfully traverse these rejections.

***Legal Precedent and Guidelines***

First, the pending claims must be given an interpretation that is reasonable and consistent with the *specification*. See *In re Prater*, 415 F.2d 1393, 1404-05, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969) (emphasis added); see also *In re Morris*, 127 F.3d 1048, 1054-55, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); see also M.P.E.P. §§ 608.01(o) and 2111. Indeed, the specification is “the primary basis for construing the claims.” See *Phillips v. AWH Corp.*, No. 03-1269, -1286, at 13-16 (Fed. Cir. July 12, 2005) (*en banc*). One should rely *heavily* on the written description for guidance as to the meaning of the claims. See *id.*

Second, interpretation of the claims must also be consistent with the interpretation that *one of ordinary skill in the art* would reach. See *In re Cortright*, 165 F.3d 1353, 1359, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); M.P.E.P. § 2111. “The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation.” See *Collegenet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 75 U.S.P.Q.2d 1733, 1738 (Fed. Cir. 2005) (quoting *Phillips v. AWH Corp.*, 75 U.S.P.Q.2d 1321, 1326). The Federal Circuit has made clear that derivation of a claim term must be based on “usage in the ordinary and accustomed meaning of the words amongst artisans of ordinary skill in the relevant art.” See *id.*

Third, anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15

U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Accordingly, the Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Fourth, if the Examiner relies on a theory of inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999) (Emphasis Added). The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. *Id.* In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The Examiner, in presenting the inherency argument, bears the evidentiary burden and must adequately satisfy this burden. *See id.* Regarding functional limitations, the Examiner must evaluate and consider the functional limitation, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. *See M.P.E.P. § 2173.05(g); In re Swinehart*, 169 U.S.P.Q. 226, 229 (C.C.P.A. 1971); *In re Schreiber*, 44 U.S.P.Q.2d 1429, 1432 (Fed. Cir. 1997). If the Examiner believes the functional limitation to be inherent in the cited reference, then the Examiner “must provide some evidence or scientific reasoning to establish the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art.” *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Inter. 1986).

Fifth, the *drawings* of the cited reference must be evaluated for what they *reasonably disclose and suggest* to one of ordinary skill in the art. *In re Aslanian*, 590 F.2d 911, 200 U.S.P.Q. 500 (CCPA 1979). Arguments based on dimensions of the drawing features are of little value where the reference does not disclose specific dimensions or any indication of whether the drawings are to scale. *See Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956, 55 U.S.P.Q.2d 1487, 1491 (Fed. Cir. 2000).

***Independent claim 1 and its dependent claims 2-9.***

As noted above, Applicants hereby cancel claims 1-9. As a result, the rejection based on Schoenberg is now moot. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1-9.

***Independent claim 10 and its dependent claims 12, 13, 18, and 19.***

Amended independent claim 10 recites, *inter alia*, "a submersible actuator, comprising: a first housing having an electric motor disposed in a first pressurized fluid; and a second housing having a control circuit disposed in a second pressurized fluid, wherein the second pressurized fluid is different from the first pressurized fluid, the control circuit is coupled to the electric motor, and the control circuit is configured to communicate with a remote control station."

Emphasis added.

Johansen does not teach or suggest "a submersible actuator, comprising: a first housing having an electric motor disposed in a first pressurized fluid," as recited by independent claim 10. In sharp contrast, Johansen is completely silent about the environment surrounding the electronics, and the Examiner merely relied on the *doctrine of inherency*. In particular, the Examiner stated "a pressurized gas would be *inherent* in an electrical enclosure otherwise the electrical components would short circuit." Office Action, page 7 (emphasis added). Applicants respectfully traverse this position of the Examiner, and stress that the Examiner has not met the requirements of the doctrine of inherency as outlined above. In order to rely on the doctrine of inherency, the missing elements must *necessarily flow* from the teachings of the prior art, and

*mere possibilities* without any basis in fact or technical reasoning are *insufficient* to support an inherency position. Applicants stress that the Examiner's reasoning is flawed for at least two reasons. According to the Examiner, the electronics must be surrounded with a pressurized gas to avoid a short circuit. See Office Action, page 7. First, Applicants stress the electronics may be surrounded with an *electrically insulating liquid or a gas* to avoid a short circuit. Second, Applicants stress that the electronics may be surrounded with a *non-pressurized* fluid (e.g., electrically insulating liquid or gas) while avoiding a short circuit. In other words, the fluid does not need to be pressurized to avoid a short circuit. Furthermore, Johansen does not disclose anything relating to the environment surrounding the electronics that would lead one of ordinary skill in the art to employ a pressurized fluid, and thus it *does not necessarily flow* from Johansen that the electronics would be surrounded by a pressurized fluid. In view of these deficiencies among others, Johansen cannot anticipate independent claim 10 and its dependent claims.

For at least these reasons among others, Applicants respectfully request withdrawal of the foregoing rejection of claims 12, 13, 18, and 19 under 35 U.S.C. § 102.

*Independent claim 20 and its dependent claims 21 and 22.*

Independent claim 20 recites, *inter alia*, "pneumatically pressurizing a control circuit in a first enclosure portion of a submersible actuator; and hydraulically pressurizing at least one electric motor in a second enclosure portion of the submersible actuator, wherein the control circuit is coupled to the at least one electric motor." Emphasis added.

Johansen does not teach or suggest "pneumatically pressurizing a control circuit in a first enclosure portion of a submersible actuator," as recited by independent claim 20. In sharp contrast, Johansen is completely silent about the environment surrounding the electronics, and the Examiner merely relied on the *doctrine of inherency*. In particular, the Examiner stated "a pressurized gas would be *inherent* in an electrical enclosure otherwise the electrical components would short circuit." Office Action, page 7 (emphasis added). Applicants respectfully traverse this position of the Examiner, and stress that the Examiner has not met the requirements of the

doctrine of inherency as outlined above. In order to rely on the doctrine of inherency, the missing elements must *necessarily flow* from the teachings of the prior art, and *mere possibilities* without any basis in fact or technical reasoning are *insufficient* to support an inherency position. Applicants stress that the Examiner's reasoning is flawed for at least two reasons. According to the Examiner, the electronics must be surrounded with a pressurized gas to avoid a short circuit. *See* Office Action, page 7. First, Applicants stress the electronics may be surrounded with an *electrically insulating liquid or a gas* to avoid a short circuit. Second, Applicants stress that the electronics may be surrounded with a *non-pressurized* fluid (e.g., electrically insulating liquid or gas) while avoiding a short circuit. In other words, the fluid does not need to be pressurized to avoid a short circuit. Furthermore, Johansen does not disclose anything relating to the environment surrounding the electronics that would lead one of ordinary skill in the art to employ a pressurized gas, and thus it *does not necessarily flow* from Johansen that the electronics would be surrounded by a pressurized gas. In view of these deficiencies among others, Johansen cannot anticipate independent claim 20 and its dependent claims.

For at least these reasons among others, Applicants respectfully request withdrawal of the foregoing rejection of claims 20, 21, and 22 under 35 U.S.C. § 102.

**Claim Rejections under 35 U.S.C. § 103(a)**

In the Office Action, the Examiner rejected claims 1-9 under 35 U.S.C. § 103(a) as obvious over Johansen in view of Schoenberg; the Examiner rejected claim 4 under 35 U.S.C. § 103(a) as obvious over Johansen in view of Schoenberg and Ursel et al. (WO 01/99259); the Examiner rejected claim 5 under 35 U.S.C. § 103(a) as obvious over Schoenberg in view of Armstrong (U.S. Publication No. 2003/0037544); the Examiner rejected claim 14 under 35 U.S.C. § 103(a) as obvious over Johansen in view of Ursel; the Examiner rejected claims 15 and 16 under 35 U.S.C. § 103(a) as obvious over Johansen in view of Schoenberg; and the Examiner rejected claim 17 under 35 U.S.C. § 103(a) as obvious over Johansen. Applicants respectfully traverse these rejections.

**Legal Precedent and Guidelines**

The pending claims must be given an interpretation that is reasonable and consistent with the *specification*. *See In re Prater*, 415 F.2d 1393, 1404-05, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969) (emphasis added); *see also In re Morris*, 127 F.3d 1048, 1054-55, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); *see also M.P.E.P.* §§ 608.01(o) and 2111. Indeed, the specification is “the primary basis for construing the claims.” *See Phillips v. AWH Corp.*, No. 03-1269, -1286, at 13-16 (Fed. Cir. July 12, 2005) (*en banc*). One should rely heavily on the written description for guidance as to the meaning of the claims. *See id.*

Interpretation of the claims must also be consistent with the interpretation that *one of ordinary skill in the art* would reach. *See In re Cortright*, 165 F.3d 1353, 1359, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); M.P.E.P. § 2111. “The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation.” *See Collegenet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 75 U.S.P.Q.2d 1733, 1738 (Fed. Cir. 2005) (quoting *Phillips v. AWH Corp.*, 75 U.S.P.Q.2d 1321, 1326). The Federal Circuit has made clear that derivation of a claim term must be based on “usage in the ordinary and accustomed meaning of the words amongst artisans of ordinary skill in the relevant art.” *See id.*

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). In addressing obviousness determinations under 35 U.S.C. § 103, the Supreme Court in *KSR International Co. v. Teleflex Inc.*, No. 04-1350 (April 30, 2007), reaffirmed many of its precedents relating to obviousness including its holding in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). In *Graham*, the Court set out an objective analysis for applying the statutory language of §103:

Under §103, the scope and content of the prior art are to be determined, differences between the prior art and the claims at issue are to be ascertained, and the level of ordinary skill in the pertinent art are to be resolved. Against this background the obviousness or non-obviousness of the subject matter is to be determined. Such secondary considerations as commercial success, long-felt but

unresolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. *KSR, slip op.* at 2 (citing *Graham*, 383 U.S. at 17-18).

In *KSR*, the Court also reaffirmed that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *Id.* at 14. In this regard, the *KSR* court stated that “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does ... because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” *Id.* at 14-15. Traditionally, to establish a *prima facie* case of obviousness, the CCPA and the Federal Circuit have required that the prior art not only include all of the claimed elements, but also some teaching, suggestion, or motivation to combine the known elements in the same manner set forth in the claim at issue. *See, e.g., ASC Hospital Systems Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984) (holding that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination.); *In re Mills*, 16 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 1990) (holding that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination). In *KSR*, the court noted that the demonstration of a teaching, suggestion, or motivation to combine provides a “helpful insight” in determining whether claimed subject matter is obvious. *KSR, slip op.* at 14. However, the court rejected a *rigid* application of the “TSM” test. *Id.* at 11. In this regard, the court stated:

The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and explicit content of issued patents. The diversity of inventive pursuit and of modern technology counsels against limiting the analysis in this way. In many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends. *Id.* at 15.

In other words, the *KSR* court rejected a rigid application of the TSM test which requires that a teaching, suggestion or motivation to combine elements in a particular manner must be explicitly found in the cited prior art. Instead, the *KSR* court favored a more expansive view of the sources of evidence that may be considered in determining an apparent reason to combine known elements by stating:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed in the patent at issue. *Id.* at 14.

The *KSR* court also noted that there is not necessarily an inconsistency between the idea underlying the TSM test and the *Graham* analysis, and it further stated that the broader application of the TSM test found in certain Federal Circuit decisions appears to be consistent with *Graham*. *Id.* at 17-18 (citing *DyStar Textilfarben GmbH and Co. v. C.H. Patrick Co.*, 464 F.3d 1356, 1367 (2006) (“Our suggestion test is in actuality quite flexible and not only permits but *requires* consideration of common knowledge and common sense”); *Alza Corp. v. Mylan Labs, Inc.*, 464 F.3d 1286, 1291 (2006) (“There is flexibility in our obviousness jurisprudence because a motivation may be found *implicitly* in the prior art. We do not have a rigid test that requires a teaching to combine ... ”)).

Furthermore, the *KSR* court did not diminish the requirement for objective evidence of obviousness. *Id.* at 14 (“To facilitate review, this analysis should be made explicit. See *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”); *see also, In re Lee*, 61 U.S.P.Q.2d

1430, 1436 (Fed. Cir. 2002) (holding that the factual inquiry whether to combine references must be thorough and searching, and that it must be based on *objective evidence of record*).

When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). The Federal Circuit has warned that the Examiner must not, “fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” *In re Dembiczaik*, F.3d 994, 999, 50 U.S.P.Q.2d 52 (Fed. Cir. 1999) (quoting *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983)).

It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983); M.P.E.P. § 2145. Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (CCPA 1959); see M.P.E.P. § 2143.01(VI). If the proposed modification or combination would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984); see M.P.E.P. § 2143.01(V).

***Rejection of claims 1-3 and 6-9 based on Johansen and Schoenberg.***

As noted above, Applicants hereby cancel claims 1-9. As a result, the rejection based on Johansen and Schoenberg is now moot. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1-3 and 6-9.

***Rejection of claim 4 based on Johansen, Schoenberg, and Ursel.***

As noted above, Applicants hereby cancel claims 1-9. As a result, the rejection based on Johansen, Schoenberg, and Ursel is now moot. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 4.

***Rejection of claim 5 based on Schoenberg and Armstrong.***

As noted above, Applicants hereby cancel claims 1-9. As a result, the rejection based on Schoenberg and Armstrong is now moot. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 5.

***Rejection of claim 14 based on Johansen and Ursel.***

As noted above, Applicants hereby amend claim 14 to recite aspects of the control circuit. In particular, amended claim 14 recites "the control circuit is configured to compare a value of a control signal with an average of a predetermined number of previous control signals." The cited references, taken alone or in hypothetical combination, fail to teach or suggest the foregoing features of the control circuit. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 14.

***Rejection of claims 15 and 16 based on Johansen and Schoenberg.***

As noted above, Applicants hereby amend claim 15 to recite aspects of the pressure balancing device, and Applicants hereby amend claim 16 to recite aspects of the control circuit. In particular, amended claim 15 recites "a membrane accumulator" and amended claim 16 recites "the control circuit is configured to control the electric motor based on feedback indicative of a current absorbed by the electric motor." The cited references, taken alone or in hypothetical combination, fail to teach or suggest the foregoing features of the pressure balancing device and the control circuit. For example, Schoenberg merely discloses a spring loaded piston as a hydrostatic compensator 40. *See* Schoenberg, FIG. 1; col. 6, lines 55-65. Schoenberg does not teach or suggest a membrane associated with the compensator 40, and thus cannot obviate the

deficiencies of Johansen. Furthermore, the cited references fail to teach or suggest any control relating to feedback indicative of a current absorbed by the electric motor. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 15 and 16.

*Rejection of claim 17 based on Johansen.*

As noted above, Applicants hereby amend claim 17 to recite aspects of the first and second fluids. In particular, amended claim 17 recites "the first pressurized fluid is a pressurized lubricating liquid and the second pressurized fluid is an inert gas." In context of independent claim 10, the pressurized lubricating liquid is disposed in the first housing having the electric motor, while the pressurized insert gas is disposed in the second housing having the control circuit. In sharp contrast, Johansen is completely silent about the environment surrounding the electronics, and the Examiner merely relied on Official Notice. *See* Office Action, page 11.

Essentially, the Examiner has taken Official Notice of facts outside of the record that the Examiner apparently believes are capable of demonstration as being "well-known" in the art. Therefore, in accordance with M.P.E.P. § 2144.03, Applicants hereby seasonably traverse and challenge the Examiner's use of Official Notice. Furthermore, Applicants emphasize that the "well-known" facts asserted by the Examiner are not of a "notorious character" and are clearly not "capable of such instant and unquestionable demonstration as to defy dispute." *See* M.P.E.P. § 2144.03. Specifically, the Applicants respectfully request that the Examiner produce evidence in support of the Examiner's position as soon as practicable during prosecution and that the Examiner add a reference to the rejection in the next Official Action. If the Examiner finds such a reference and applies it in combination with the presently cited references, Applicants further request that the Examiner specifically identify the portion of the newly cited reference that discloses the allegedly "well known" elements of the instant claim, as discussed above, or withdraw the rejection. If the Examiner relies only on personal knowledge, then the Applicants respectfully stress that the Examiner must provide an affidavit or declaration in support of such personal knowledge. *See id.*

In addition, the Applicants submit that the Examiner's use of Official Notice is improper on a legal basis, because the Official Notice is a broad sweeping statement as to features recited in a majority of the pending claims. Section 2144.03 of the Manual of Patent Examining Procedure specifically states:

Official notice without documentary evidence to support an examiner's conclusion is permissible only in some circumstances. While "official notice" may be relied on, these **circumstances should be rare** when an application is under final rejection or action under 37 CFR 1.113.

...  
As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "**capable of such instant and unquestionable demonstration as to defy dispute**" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)).

...  
For example, assertions of technical facts in the areas of esoteric technology or **specific knowledge of the prior art must always be supported by citation to some reference work** recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21.

...  
*In re Eynde*, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973) ("[W]e reject the notion that judicial or administrative notice may be taken of the state of the art. The **facts constituting the state of the art** are normally subject to the possibility of rational disagreement among reasonable men and are **not amenable to the taking of such notice**.").

It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697

...  
Any rejection based on assertions that a fact is well-known or is common knowledge in the art without documentary evidence to support the examiner's conclusion **should be judiciously applied**. Furthermore, as noted by the court in *Ahlert*, any facts so noticed should be of notorious character and **serve only to "fill in the gaps" in an insubstantial manner** which might exist in the evidentiary showing made by the examiner to support a particular ground for rejection.

M.P.E.P. § 2144.03. In view of these passages, Applicants reiterate that the Examiner's use of Official Notice is improper and cannot stand, because the scope of the Official Notice is far beyond an *insubstantial gap* in the cited reference. In fact, the Examiner appears to be rejecting the *majority of the claims* based on Official Notice or inherency. Moreover, the Examiner's Official Notice refers to the *general state of the art*, which the foregoing legal precedent clearly precludes.

Accordingly, Applicants respectfully request withdrawal of the rejection of claim 17.

**New Claims**

As noted above, Applicants hereby add new claims 23-32. Applicants submit that the new claims are allowable at least for the same reasons as discussed in detail above. In addition, Applicants stress that the cited references, taken alone or in hypothetical combination, fail to teach or suggest the specific control features recited by new claims 24-26 and 29-31. Furthermore, Applicants stress that the cited references, taken alone or in hypothetical combination, fail to teach or suggest an inert gas disposed in a container housing a control circuit as recited by new independent claim 27. As discussed above, the cited references are silent about the specific environment of the electronics. Accordingly, Applicants respectfully request consideration and allowance of new claims 23-32.

**Conclusion**

Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner believes that certain amendments would expedite allowance of the present application or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

Date: October 19, 2010

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